

## National 4 Homework 16

### Questions 1,2, 3 and 4 are Non Calculator

1. Mount Kilimanjaro is 19 341 feet high
- a) Write this number in Scientific Notation.  
b) Round this height to one significant figure.



2. Multiply out and simplify;

a)  $5(2x-3)+4$       b)  $3(4x-1)-7x$       c)  $5(2-x)+3(2x-1)$ .

3. Lucy has a recipe which makes 10 flapjacks. She wants to make 15 flapjacks. What quantity will she need of each ingredient?

Flapjacks.

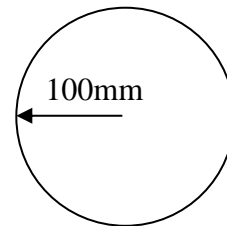
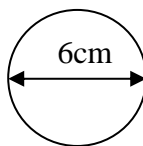
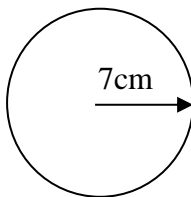
240g Porridge Oats  
180ml Golden Syrup  
150g Butter  
50g Dried Fruit



4. Factorise

a)  $14x-21$       b)  $20p+25q$       c)  $12y-36$       d)  $18-4r$ .

5. Calculate the area of each of these circles.

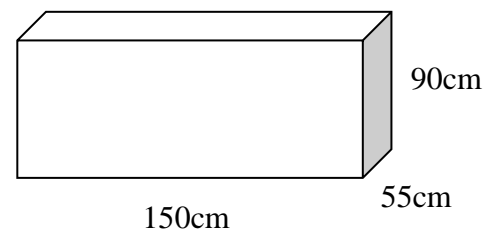


6. A wheel has a diameter of 30cm. If the wheel completes 6 full rotations, what distance has it covered to the nearest metre?

7. A hot water tank is in the shape of a cuboid as shown.

a) PlumbersRUs are to fill the tank completely with water.

How much water will the plumbers need?  
Write your answer in litres.



- b) The hot water tank develops a leak. Plumbers discover that it now only contains 495 litres of water. What is the depth of water in the tank?